



Board of Directors Meeting

\$137,060,000*

Massachusetts Department of Transportation
Metropolitan Highway System Revenue Refunding Bonds (Subordinated)
Commonwealth Contract Assistance Secured, 2018 Series A

Fixed Rate Refunding and Swap Termination Update
Debt Policy and Swap Policy Amendments

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April 23, 2018

* Preliminary, subject to change.

Overview of Refunding & Swap Termination Transaction

- Proposed financing structure: traditional fixed-rate current refunding and termination of associated UBS swaps
 - Issue fixed rate bonds: \$137,060,000¹ Revenue Refunding Bonds (Subordinated) Commonwealth Contract Assistance Secured, 2018 Series A (“2018A MHS Bonds”)
 - Refund variable rate bonds: \$137.855 million Subordinated Variable Rate Demand Obligations 2010 Series A-1 and A-7
 - Terminate \$137.855 million of notional amount of UBS swaps associated with 2010 Series A-1 and A-7 Subordinated bonds (“Terminated Swaps”)
 - Fixed rate refunding structured to produce level/uniform savings – net present value savings = \$1.5 million¹
- Omnicap Group LLC is our municipal advisor, has a fiduciary duty to MassDOT, and is advising MassDOT on the transaction
 - Omnicap is registered with the SEC and MSRB as a muni advisor

¹ Based on March 26, 2018 rates, subject to change.

Bond Pricing and Closing Schedule

- May 1: price 2018A MHS Bonds and sign Bond Purchase Agreement (“BPA”)
- May 1: price payment on Terminated Swaps and sign swap termination confirm
- May 10: 2018A MHS Bonds closing
- May 11: settlement on Terminated Swaps
 - Only 7 business days between pricing and bond closing which reduces the timeframe for a market event to occur that may impact bond closing
 - To further mitigate the remote risk of the bonds not closing, we scheduled the settlement of the swap terminations to occur the following business day

Amendment to Issuance Resolution

- MassDOT adopted on March 19, 2018 the Issuance Resolution in order to provide for the issuance of the 2018A MHS Bonds
- Amending the Issuance Resolution provides for MassDOT to reinstate the Terminated Swaps should the 2018A MHS Bonds not close
 - If the 2018A MHS Bonds do not close then the Terminated Swaps would be reinstated
 - A reinstatement cancels the swap terminations
 - The Finance and Audit Committee voted unanimously in favor of the proposed amendments to the Issuance Resolution at their April 18th meeting
- Extremely unlikely the 2018A MHS Bonds do not close once the BPA is signed at pricing (May 1st)
 - The BPA provides certain closing conditions and the right to terminate the BPA by the Underwriters under certain, remote circumstances
 - Despite the extremely remote bond closing risk, the amendment to the Issuance Resolution prepares MassDOT to reinstate the Terminated Swaps in lieu of being required to pay the swap termination amount

Overview of Swap Reinstatement

- On the date the BPA is executed (scheduled for May 1st) the swap termination amount will be determined and UBS will terminate its existing hedges
- In the unlikely event MassDOT, BAML and Citi do not satisfy the termination condition by closing the bond transaction, the existing swap agreement with UBS will not be terminated
 - As a result, UBS will need to enter into new hedges that it previously terminated on the date the BPA was executed
 - Depending on market changes a reinstatement event could lead to either a payment by UBS to MassDOT or a payment by MassDOT to UBS
 - In the event UBS incurs a cost by reinstating its hedges and continuing the terms of the original swap transaction, MassDOT would be required to pay this cost to UBS

Closing Conditions

- Reinstatement of the Terminated Swaps would only occur if the 2018A MHS Bonds did not close
 - At the time of the execution of the swap termination, BAML and Citi would have signed a written BPA committing them to purchase the 2018A MHS Bonds
 - The MassDOT BPA contains “standard” closing conditions routinely included in BPAs executed by the Commonwealth and its various authorities
 - The BPA has been reviewed by MassDOT’s Bond Counsel
 - BAML and Citi are the two leading underwriters for the Commonwealth and its agencies and have never terminated a BPA with any Commonwealth related credit

Estimated Cost of Reinstatement

- A reinstatement event is considered highly unlikely
 - MassDOT's Municipal Advisor and Underwriters have computed the potential cost to MassDOT should such event occur
- To explore such a worst case scenario, these calculations compute the payment that would be due from MassDOT in the event a 3x Standard Deviation market event occurred in the 7 business days between pricing the Terminated Swaps and the 2018A MHS Bonds closing date
 - Applying the 3x Standard Deviation test (the "Three Sigma Rule"¹) the payment due from MassDOT to UBS in the *extremely unlikely occurrence of a 3x Standard Deviation market event* is shown below
 - Pursuant to the Three Sigma Rule, there is a 99.7% confidence level that the payment would be no greater than the amounts on the table below

Past 5 Years 9Yr 68% 1ML Swaps	3x St. Dev Movement	3x St. Dev DV01 (\$108k)
1-Week ▲'s	19bps	\$2,052,000
2-Week ▲'s	27bps	\$2,916,000

¹ See https://en.wikipedia.org/wiki/68-95-99.7_rule.

Amendments to Debt and Swap Policies

- The Debt Issuance and Management Policy (“Debt Policy”) and Interest Rate Swap Management Policy (“Swap Policy”) each establish a framework for the issuance and effective management of MassDOT’s debt and swap portfolios consistent with Chapter 6C of the Massachusetts General Laws (the “Enabling Act”) and other applicable laws and the terms of the relevant bond trust agreements
- These policies are intended to serve as a source of information and guidance for the ongoing management of existing debt and associated swaps for the professional staff of MassDOT, its Board of Directors, and the bond rating agencies, as well as the general public and financial institutions doing business with MassDOT
- The Finance Advisory Board (“FAB”) requires all bond issuing State entities such as MassDOT to file debt and swap policies in compliance with regulations, 976 CMR (Code of Massachusetts regulations) and these regulations require that such policies be formally adopted by MassDOT’s governing board at least every two years and filed with FAB each even-number year
 - The Debt Policy and Swap Policy were last formally approved by the Board on February 10, 2016
- The proposed Debt Policy has been amended to reflect that there is no longer any debt outstanding under the Western Turnpike Trust Agreement and minor updates throughout regarding risk management and refunding debt
- The proposed Swap Policy has been amended to reflect changes to conform to the Debt Policy and minor updates with respect to risk management